CLAIMS

Claims 1 - 10 (canceled).

11. (original) A method for fabricating mirrored mid-plane spheroidal balls using a plurality of nuggets bonded to a plate, the method comprising the steps of:

a) bonding a first dielectric plate and a second dielectric plate to both sides of a metallic plate;

b) cross cutting said first and second dielectric plates to form an array of evenly spaced nuggets on said metallic plate;

c) heat treating said nuggets to form hemispheres on both sides of said metallic plate;

d) removing the combination of adjoining hemispheres with sandwiched metallic plate between them to form rotationally free mirrored midplane spheroidal balls.

12. (original) The method of claim 11 wherein immersing the nuggets in a hot liquid is the heat treatment.

13. (original) The method of claim 11 wherein said first dielectric plate and said second dielectric plate are transparent.

14. (original) The method of claim 11 wherein said first dielectric plate is transparent and second dielectric plate is opaque.

15. (original) The method of claim 11 wherein said metallic plate functions both as mirror material and for maintaining tension on the assembly.

Claims 16 - 22 (canceled).

23. (new) The method of claim 11 wherein said balls are micro-mirror cylinders.

24. (new) Apparatus for manufacturing micro-mirror balls comprising:

a) a sheet of at least one thin metallic plate covered with at least one thin dielectric coating;

b) said sheet kept under tension;

c) a tool for cross-cutting said sheet;

d) a tool for heating said sheet;

e) a tool for molding and stamping said sheet; and

f) said tool producing micro-mirror balls with a mid-plane mirror.

25. (new) An apparatus of claim 24 wherein at least one dielectric coating is transparent.

26. (new) An apparatus of claim 24 wherein the balls are micro-mirror cylinders.

27. (new) A method for fabricating micro-mirrored balls for directed reflection of light, comprising the steps of

a) advancing a sheet comprised of at least one sheet of reflective material covered by at least one sheet of transparent material;

b) said sheet kept under tension;

c) cross-cutting, heating, and punching out said micro-mirror balls from said sheet; and

d) placing said micro-mirror balls in a heat bath.

28. (new) An apparatus of claim 27 wherein the balls are micro-mirror ellipsoids.

29. (new) An apparatus of claim 27 wherein the balls are micro-mirror cylinders.

30. (new) Apparatus for producing micro-mirror balls comprising:

a) a laminate comprised of at least one plate of reflective material covered by two dielectric plates;

b) said laminate moving between tension and pressure producing devices;

c) a tool which cross cuts said dielectric plates;

d) said sheet being heated; and

e) an extrusion die which punches out said micro-mirror balls

31. (new) An apparatus of claim 30 wherein the balls are micro-mirror ellipsoids.

32. (new) An apparatus of claim 30 wherein the balls are micro-mirror cylinders.

33. (new) An apparatus for making micro-mirror balls comprising:

a) a flexible laminate plate of thin reflective material sandwiched between two thin dielectric materials;

b) means for supplying a continuous source of said laminate plate;

b) means for supplying a continuous source of said laminate plate;

c) tension-producing means in said plate;

d) means for providing a confronting path for cross-cutting, heating-applying, and extracting spheroidal nuggets from said laminate plate;

e) means for cross-cutting and punching out said balls from said laminate plate; and

f) means for collecting said micro-mirror balls.

34. (new) An apparatus of claim 33 wherein said heat-applying means is radiant energy.

35. (new) An apparatus of claim 33 wherein said laminate plate is in the form of a long thin ribbon.

36. (new) A method of manufacturing micro-mirror balls, comprising the steps of

a) producing a laminate plate consisting of a thin reflective material sandwiched between two thin dielectric materials;

b) providing tension to move a continuous supply of said laminate plate;

c) cross-cutting said balls on said laminate plate to form nuggets;

d) punching out said micro-mirror balls from said laminate plate.

37. (new) The method of claim 36 wherein said balls are heat treated.

38. (new) The method of claim 36 wherein said balls are heat annealed in a liquid bath.

39. (new) The method of claim 36 wherein said laminate plate is a long thin ribbon.